## MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT AIR QUALITY DIVISION

# REPORT CERTIFICATION

Authorized by 1994 P.A. 451, as amended. Failure to provide this information may result in civil and/or criminal penalties.

Reports submitted pursuant to R 336.1213 (Rule 213), subrules (3)(c) and/or (4)(c), of Michigan's Renewable Operating Permit (ROP) program must be certified by a responsible official. Additional information regarding the reports and documentation listed below must be kept on file for at least 5 years, as specified in Rule 213(3)(b)(ii), and be made available to the Department of Natural Resources and Environment, Air

Quality Division upon request.						
Source Name Marathon Pet	roleum Company LP				County Wayne	
Source Address 1300 South	Fort Street			City	Detroit	
AQD Source ID (SRN) A9831	R0	OP No.	199700013c		ROP Section No.	01
Please check the appropriate box(						
Annual Compliance Certific	ation (Pursuant to Rul	e 213(4)(	c))			
Reporting period (provide incl  1. During the entire reportiterm and condition of which method(s) specified in the F	ng period, this source wa is identified and included					
2. During the entire reporterm and condition of which deviation report(s). The meaning unless otherwise indicated and an entire reporterment.	h is identified and include thod used to determine	led by thi complian	s reference, EXCEP ce for each term and	r for the	deviations identifie	d on the enclosed
Semi-Annual (or More Freq	uent) Report Certificat	ion (Pur	suant to Rule 213(3)	(c))		
Reporting period (provide inc  1. During the entire reporting deviations from these required incomplete incomp	ing period, ALL monitoring rements or any other terr ng period, all monitoring rements or any other terr	ns or con and asso	ditions occurred.	requiren	nents in the ROP w	ere met and no
Other Report Certification			***************************************			
Reporting period (provide inc Additional monitoring reports Revised Consent Decr	or other applicable docur	AND RESIDENCE OF CORRESPONDE	uired by the ROP are			
I certify that, based on informatic supporting enclosures are true, ac		M its	PC Investment LLC, General Partner	tements		And the second s
Name of Responsible Official (pri	int or type)	De	eputy Assistant Secretary Title			843-9100 • Number
a.					7/2	6/12
Signature of Responsible Official	The second secon					Date

\* Photocopy this form as needed.



#### FED EX GROUND

July 25, 2012

Chief Environmental Enforcement Section Environment and Natural Resources Division U.S. Department of Justice ENRD Mailroom, Room 2121 601 D. Street, NW Washington, DC 20530

## Marathon Petroleum Company LP

1300 South Fort Street Detroit, MI 48217 Telephone 313/843-9100

Director, Air Enforcement Division U.S. Environmental Protection Agency c/o Matrix New World Engineering, Inc. 26 Columbia Turnpike Florham Park, NJ 07932

RE: First Revised Consent Decree Progress Report – January 1 – June 30, 2012; Marathon Petroleum Company LP, Michigan Refining Division, Detroit, Michigan

Dear Sir or Madam:

Pursuant to Paragraph 33 of the November 2005 First Revised Consent Decree, United States of America et. al. v. Marathon Ashland Petroleum LLC (presently known as Marathon Petroleum Company LP) (Civil Action No. 4:01CV-40119-PVG), as modified on March 31, 2008 and June 30, 2010, MPC is submitting this semi-annual progress report for the time period January 1 through June 30, 2012. In order to meet the reporting requirements outlined in Paragraph 33 of the Consent Decree, each subject area is described in the following attachments:

- Attachment 1 Affirmative Relief/Environmental Projects (Measures) implementation progress report.
- Attachment 2 Summary of Appendix R Emissions
- Attachment 3 Identification of Emission Limit Exceedances
- Attachment 4 Description of any problems anticipated with respect to meeting the requirements of this Consent Decree
- Attachment 5 Description of all environmentally beneficial projects and SEP implementation activity in accordance with the Consent Decree
- Attachment 6 Any additional matters MPC believes should be brought to the attention of the United States or U.S. EPA none.
- Attachment 7 Hydrocarbon and Acid Gas Incident Status Report

Should you have any questions or require additional information please contact Honor Sheard at (313) 297-6248.

#### <u>CERTIFICATION</u> –

I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my directions and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, the information in Attachments 1 through 7 of this submittal is, to the best of my knowledge and belief, true, accurate, and complete.

Sincerely,

Marathon Petroleum Company LP

By: MPC Investment LLC, General Partner

Mr. C. T. Case, Deputy Assistant Secretary

Attachments (7)

Cc: Air and Radiation Division

U.S. EPA, Region 5

Office of Regional Counsel U.S. EPA, Region 5

Ms. Wilhemina McLemore Michigan Department of Environmental Quality Air Quality Division

Via e-mail: Mr. John H. Gray (MPC), Mr. James R. Wilkins (MPC), Ms. Virginia King (MPC), Ms. Clare Sullivan, Matrix Engineering; Mr. John Fogarty, U.S. EPA; Mr. Patrick Foley, U.S. EPA; Michele Jencius, U.S. EPA

## Affirmative Relief/Environmental Projects (Measures) Implementation Progress Report

The following table provides a status report on First Revised Consent Decree activities or tasks having a deadline occurring between January 1 through June 30, 2012. The citations refer to the paragraph numbers (all in Section V) of the Consent Decree. All items were completed as required during this reporting period.

- In accordance with discussions between MPC and U.S. EPA, the schedule for the low oxides of nitrogen (NOx) combustion promoter (COP) and NOx-reducing catalyst additives has been revised several times. The 18-month catalyst trial period ended on March 31, 2006.
- 12B MPC did not add conventional combustion promoter during the reporting period.
- MPC is meeting the agreed upon 365-day limit of 93 ppm and the 7-day limit of 123 ppm for NOx. The refinery has met these limits since November 15, 2005. The refinery has met the proposed (1/4/12) 365-day limit of 70 ppm NOx since November 22, 2008.
- A relative accuracy test audit (RATA) was conducted on the NOx continuous emissions monitoring system (CEMS) installed on the FCCU regenerator exhaust before the ESPs and exhaust stack on March 11, 2011. A RATA was conducted as the refinery reranged the analyzer in accordance with the NSPS Ja requirements. A quarterly cylinder gas audit (CGA) of the NOx CEMS was performed on May 28, 2012. Data collected was within allowable limits and was submitted to appropriate agencies with the Detroit Refinery's quarterly CEMS reports.
- 12K A RATA was conducted on the CO CEMS installed on the FCCU regenerator exhaust before the ESPs and exhaust stack on March 11, 2011. A CGA of the CO CEMS was performed on May 28, 2012. Data collected was within allowable limits and was submitted to appropriate agencies with the Detroit Refinery's quarterly CEMS reports.
- 12L The Detroit refinery's Hydrotreater Outage Plan for NOx was approved by the U.S. EPA on November 20, 2007. There have been no Hydrotreater Outages during the reporting period, where the plan had to be used.
- MPC installed Ultra-Low NOx burners on the Crude Vacuum Heater and the Crude Alcorn Heater. This was completed ahead of the schedule outlined in the NOx Control Plan. The two heaters have remained below MPC's plan limit of 0.050 lbs/MMBTU since November 15, 2005.
- 13D MPC's corporate office submitted the NOx control plan on March 31, 2012.
- A NOx CEMS was installed on the combined stack for the Crude Vacuum Heater and the Crude Alcorn Heater, as required. The CEMS analyzer was certified in November 2005.

- A quarterly CGA of the NOx CEMS installed on the Crude Vacuum and Crude Alcorn Heaters' combined exhaust was performed on January 12, 2012 and April 12, 2012. The CGA accuracy was within allowable limits. Data collected from the tests were submitted to appropriate agencies with the Detroit Refinery's quarterly CEMS reports.
- 13L The Detroit refinery has not sought a PAL for CO emissions from heaters.
- MPC has incorporated the agreed upon sulfur dioxide (SO<sub>2</sub>) emission limits for the FCCU Regenerator into the refinery's Title V Permit number 199700013c.
- 14E/F The Detroit Refinery completed an optimization study for SO<sub>2</sub> adsorbing catalyst additive in the FCCU in July 2005. Intercat Super SOxGetter continues to be added with fresh catalyst as required to maintain compliance with emission limits.
- The Detroit Refinery has been in compliance with the FCCU Regenerator's SO2 limits of 35 ppm on a 365-day average and 70 ppm on 7-day average since November 30, 2005.
- A RATA was conducted on the SO<sub>2</sub> CEMS installed on the FCCU regenerator exhaust before the ESPs and exhaust stack on March 11, 2011. A RATA was conducted as the refinery reranged the analyzer in accordance with the NSPS Ja requirements. A quarterly CGA of the SO<sub>2</sub> CEMS was performed on May 28, 2011. Data collected was within allowable limits and was submitted to appropriate agencies with the Detroit Refinery's quarterly CEMS reports.
- 14J The Detroit refinery's Hydrotreater Outage Plan for SO<sub>2</sub> was approved by the U.S. EPA on November 20, 2007. There have been no Hydrotreater Outages during the reporting period, where the plan had to be used.
- This paragraph requires that MPC discontinue or reduce burning of fuel oil in its heaters and boilers. For the Detroit Refinery, this included the elimination of fuel oil burning in its CO Boiler. The CO Boiler ceased operation permanently in August 2003 and has been dismantled. No other heaters or boilers at the Detroit Refinery currently burn fuel oil.
- MPC's Detroit refinery maintained compliance, except as outlined in Attachment 3 and allowed during periods of start-up, shutdown, and malfunction, with the limits established by NSPS J for the heaters identified in Appendix H, per the schedule listed. Alternative monitoring plans (AMPs), relevant to heaters and boilers, have been approved by U.S. EPA Region V for the FCCU disulfide off-gas, Alkylation Unit deethanizer off-gas, Propylene Unit deethanizer off-gas, Continuous Catalytic Reformer (CCR) lock hopper vent gas and the CCR chlorsorb vent.
- NSPS J limits and requirements have been incorporated into the Detroit Refinery's Title V renewable operating permit.
- As specified in this paragraph MPC certifies compliance with paragraph 15 of the CD. Please note that no heater within the refinery is capable of burning fuel oil and that the applicable heaters meet NSPS J compliance.

- As specified in this paragraph and in Appendix I of the CD, the Detroit Refinery was required to accept the FCCU NSPS J sulfur oxides (SOx) limit as of December 31, 2004. MPC petitioned U.S. EPA to use the existing SO<sub>2</sub> CEMS data plus a 10% correction factor to demonstrate compliance with the NSPS J SOx limit. MPC's Detroit refinery maintained compliance with NSPS A and J for the FCCU Regenerator since January 1, 2006 except as described during periods of start-up, shutdown, and malfunction.
- As specified by this paragraph MPC began operations of two electrostatic precipitators (ESPs) on December 21, 2004. Periodic stack testing results indicate the ESPs operate below the 1 pound per 1,000 pounds of coke burn as specified. MPC has maintained compliance with the respective particulate limits since December 21, 2004, except during periods of start-up, shutdown and malfunction. Further performance testing was conducted during the week of April 23<sup>rd</sup> of this year, with passing results.
- 16C The Detroit refinery has not sought a PAL for particulate emissions.
- MPC operates a continuous opacity monitoring system (COMS) on the Detroit Refinery's FCCU's exhaust stack.
- 17Aiii During the reporting period there were 3 hydrocarbon flaring events. Corrective actions for the event on January 22-23, 2012 and April 12, 2012 are listed in Attachment 7. The event from June 30, 2012 is still under investigation.
- At this time MPC has accepted NSPS subpart J compliance for fuel gas combustion device at the Detroit Refinery for all four flares. Routinely generated refinery fuel gas streams that were combusted in these flares either had to be controlled and monitored for hydrogen sulfide (H<sub>2</sub>S) or re-routed out of the flare. Please see additional information in Attachment 4.

For the Unifiner flare, the only stream that required re-routing was the Unifiner naphtha skimmer vent stream. A compressor was installed and commissioned such that this vent stream was re-routed out of the flare and back into the process.

For the Alkylation flare, the only stream requiring re-routing was the Alkylation unit CDR vent. A refrigerant purge pump was installed and commissioned in order to prevent the CDR from being vented to the flare.

AMPs, relevant to fuel gas combustion devices, have been approved by U.S. EPA Region V for the CP spent caustic drum, SR aromatics sump vent, SR recycle hydrogen, Unifiner recycle hydrogen, LPG railcar purge gas, Alky spent caustic system, Alky Degassing and Crude spent caustic drum. Data collected pursuant to these AMPs are included in the quarterly CEMS reports submitted to the MDEQ and U.S. EPA.

18Aiii As of June 30, 2003, the Detroit Refinery began compliance with the 6BQ compliance option per the CD and the Benzene Waste Operations NESHAP (BWON) regulations.

- 18B The Detroit Refinery did not change its BWON compliance option from 6 BQ to 2 Mg during this reporting period.
- The Detroit Refinery has completed installation and operation of primary and secondary carbon canisters at different stations throughout the refinery. In addition, MPC has developed a monitoring program and completes periodic monitoring of the canisters.
- 18Eii The Detroit Refinery has chosen to monitor the carbon canisters twice a week based on design data.
- 18Eiii The Detroit Refinery monitors carbon canisters twice a week for breakthrough. When this occurs the secondary canister is moved to the primary position and a new secondary canister is installed.
- 18Eiv MPC has a fresh supply of carbon canisters available on-site.
- 18Ev Records documenting carbon canister monitoring and switch outs are kept on-site.
- A review of new benzene waste streams occurs with every management of change. Additionally, an annual review for new benzene waste streams takes place when the annual TAB report is compiled. The most recent review took place in September 2011.
- 18Giii Per this paragraph, MPC is required to conduct audits of laboratories that perform analyses of MPC's BWON samples at least once every two (2) years. During this reporting period, MPC used Catlettsburg's RAD Laboratory and ESC Labs of Nashville for BWON analysis. An audit was last conducted on February 8, 2012 for RAD and on July 19 20, 2011 for ESC.
- A procedure has been developed to ensure that benzene due to spills is included in the Detroit Refinery's total annual benzene (TAB) quantity.
- Annual training is conducted as required. Details of MPC's training program are included in the quarterly BWON reports.
- 18Iv The only contractors identified that meet the description in this paragraph are LDAR contractors which will perform monitoring and visual inspections of BWON control equipment. Their training is required per paragraph 20 of the CD and is reported in the quarterly LDAR and BWON reports.
- Revised BWON waste/slop/off-spec oil schematics were submitted to appropriate agencies on July 16, 2012.
- As required by this paragraph, MPC originally submitted a proposed end-of-line (EOL) sampling plan to U.S. EPA on October 29, 2003 and was revised and resubmitted on February 9, 2010 and approved on March 8, 2010. MPC began reporting these results in the first quarter BWON reports for 2007. MPC submitted a revised plan on March 11, 2011.

- 18Nii Drains, with water traps, that are subject to BWON or NSPS QQQ control requirements have been included in a program to visually inspect them weekly. All area drains that are segregated storm water drains have been identified and marked per this paragraph. MPC has developed a system to visually inspect, on at least a weekly basis, all conservation vents and indicators on process sewers for detectable leaks and to record the results. If leaks are detected, the vents will be reset.
- 180ii The Detroit Refinery was not included in the carbon canister study referenced in this paragraph, because no carbon canisters were installed as of January 31, 2002.
- 18Pii Information required to be reported by this paragraph is included in the quarterly BWON reports that are submitted to the MDEQ and U.S. EPA.
- 18Q The Detroit Refinery will submit reports, etc. according to the provisions of this paragraph.
- 19Ai As of June 30, 2003, the Detroit Refinery has completed implementation of actions to comply with the BWON compliance option set forth at 40 CFR §61.342(e).
- 19Aiii The Detroit Refinery manages and treats all organic benzene waste streams in accordance with the requirements of 40 CFR §61.342(c)(1) and has completed installation of BWON controls.
- 19Aiv As of June 30, 2003, the Detroit Refinery manages and treats all aqueous benzene wastes in accordance with 40 CFR §61.342(e)(2). In addition, MPC has satisfied the compliance measures specified in 19Aivc as follows:
  - (1) A desalter water flash column was installed and commissioned.
  - (2) The drain system components in the Melvindale and Crude tank farms have been fitted with controls that meet the requirements of 40 CFR §61.346.
  - (3) BWON controls (floating roof) have been installed on Tank 507.
  - (4) The aqueous benzene waste from the truck-loading area at the bulk gasoline terminal has been re-routed through a system controlled pursuant to the requirements of 40 CFR Part 61, Subpart FF.
    - In addition, the Detroit Refinery has initiated programs to complete testing, monitoring, and reporting activities as required by 40 CFR Part 61, Subpart FF. A report certifying compliance with BWON control requirements was submitted to U.S. EPA on August 26, 2003.
- A written refinery-wide leak detection and repair (LDAR) program has been developed and is updated as needed.
- Training for the LDAR program is reported on a quarterly basis in the refinery's LDAR reports submitted to MDEQ and U.S. EPA.
- 20C/D MPC conducted a third-party LDAR audit on March 28, 2011.

- 20Ei According to this paragraph, MPC must utilize an internal leak definition of 500 ppm for all valves, excluding pressure relief devices. Currently all valves (except pressure relief devices) are monitored at this lower leak definition.
- 20Eii According to this paragraph, MPC must utilize an internal leak definition of 2,000 ppm for all pumps. Currently all pumps are monitored at this lower leak definition.
- The applicable regulatory leak definitions for valves and pumps continues to be used and will be used in the future for reporting leaks at the Detroit Refinery to regulatory agencies. Also, leakers at the lower leak rates are tracked and repaired within 30 days of detection.
- The Detroit Refinery continues to perform first repair attempts on valves (on which monitoring technicians are able to perform maintenance) leaking at greater than 200 ppm.
- 20H The Detroit Refinery continues to monitor pumps on a monthly basis and valves on a quarterly basis as required by this paragraph.
- The Detroit Refinery uses ARI's FELDAR software as the refinery's electronic database to store LDAR data. MPC continues to use electronic data collection devices during LDAR monitoring as required by this paragraph.
- A program to perform daily QA/QC review of monitoring data was utilized during the reporting period. Quarterly QA/QC reviews of contractors' LDAR data were performed in April 2012 and July 2012.
- The Detroit Refinery continues to use its Management of Change (MOC) program to track the addition of pumps and valves.
- 20Mi The Detroit Refinery continues to use methane as calibration gas for LDAR monitoring equipment.
- 20Mii The Detroit Refinery continues to perform cal drift assessments of LDAR equipment with 500 ppm methane calibration gas.
- 20N The Detroit Refinery has developed programs to meet the "Delay of Repair" requirements in this paragraph.
- 20Niii The Detroit Refinery continues to monitor pumps at 2,000 ppm and perform first repair attempts within fifteen days.
- 200ib MPC certifies that it uses electronic data collection during LDAR monitoring and is following the manufacturer's recommended operating procedures for dataloggers and / or other electronic devices at its Detroit Refinery.
- 200iib The last LDAR audit was conducted pursuant to Paragraph 20C of the CD at the Detroit Refinery on March 28, 2011. The next audit will be required by March 2013.

- 200iic Information required by this paragraph was included in the Detroit Refinery quarterly LDAR reports.
- The Detroit Refinery submits copies of its quarterly LDAR reports to U.S. EPA and U.S. EPA-Region 5.
- As of the Date of Lodging of the CD, the Detroit Refinery had programs in place for the Sulfur Recovery Unit (SRU) to meet NSPS Subparts A and J.
- 21A There were no periods of time in which the sulfur pit vapors were routed to the atmosphere during the period.
- 21C MPC's updated PMO plan for the SRU was last submitted to the U.S. EPA on September 8, 2011.
- Tail gas events occurred on January 25-26, 2012 and March 12, 2012. Reports were submitted within the required timeframe.
- The tail gas event on January 25-26, 2012 at the refinery was also an acid gas flaring event. The report was submitted within the required timeframe.

#### **Description of Any Problems Meeting Consent Decree Requirements**

The refinery's end of line plan for compliance with BWON requirements under paragraph 18K was approved in March 2010. Since the approval, the Detroit refinery has been concerned with and evaluating methods for taking the monthly Spent Caustic sample as required by the plan. The refinery's spent caustic vessels do not have piping to allow for the collection of a safe sample. The refinery currently has an engineering project to install a sampling station. In addition, the refinery submitted an update to the end of line plan to reflect our current abilities on March 11, 2011.

#### Implementation of Environmental Beneficial Projects (SEPs)

The Detroit Refinery has finished the process of renovating Fordson Island. Tanks, piping, and structures have been removed from the island. A Phase I environmental assessment of the property was completed in July 2001. A Phase II environmental assessment of the property was completed and the report was submitted to the Wayne County Department of Environment on June 12, 2003. A pipeline to an alternate terminal has been constructed and has been commissioned. Additional site investigation was performed and a site-specific analysis report was submitted to the Wayne County Department of Environment and the Michigan Department of Environmental Quality (MDEQ) in June 2004.

MPC has been unable to transfer ownership to a governmental or non-profit organization; therefore MPC is maintaining this site as green-space. A letter was submitted to EPA on January 12, 2007 providing notification of this development. Since this date MPC has taken efforts to maintain the site as an undeveloped property for use by local wildlife including migratory birds. The site has restricted access to humans. At this time, MPC has met the requirements and intent of the Consent Decree. MPC has documented evidence of wildlife such as fox and coyote frequenting the island.

## **Additional Matters of Concern**

There are no additional matters of concern at this time.

## Hydrocarbon and Acid Gas Incident Status Report

The attached spreadsheet has the on-going corrective actions from Hydrocarbon and Tail Gas Incidents.

## **First Revised Consent Decree**

# Michigan Refining Division Attachment 2 - Summary of Appendix R Emissions

#### 1st Half 2012

(in tons/month)

Type of Unit	SOx	СО	NOx	PM	Total
FCCUs	1.02	7.29	3.74	0.75	12.80
Heaters/Boilers			4.53		4.53
SRUs	3.46				3.46
Total	4.48	7.29	8.28	0.75	20.79

SOx	Emissions						F		SED CONSE		E							1st Hal	f 2012
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	FCCU	0.92	0.34	CEM	1.30	0.45	CEM	1.26	0.47	CEM	3.87		CEM	5.25		CEM	4.23		CEM
42	SRU	8.14	3.03	CEM	8.43	2.93	CEM	10.72		CEM	9.54		CEM	8.72		CEM	11.40		CEM
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	TOTAL =	9.06	3.37		9.73	3.38		11.98	4.46		13.41	4.82		13.97	5,19		15.63	5,63	

#### Note 1 - Basis of Calculations -

CEM Continuous Emission Monitor
PEM Parametric Emission Monitor
Stk Test Periodic or Annual Stack Test
MB Mass Balance
Engr Est Engineering Estimate
EF Emission Factor Estimate

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4H1	Crude Vacuum Htr	4.90		CEM	10.58		CEM	9.03		CEM	10.72		CEM	11.74	4.37	CEM	11.50	4.14	CEM
	Crude Alcorn Htr	8.40		CEM	5.30		CEM	4.50		CEM	4.50		CEM	4.10	1.50	CEM	4.20		CEM
	BT Charge Htr	0.00		OOS	9.00		CEM	7.80		CEM	7.80	2.90	CEM	7.00	2.60	CEM	7.10		CEM
FU00148	BT Inter Htr	0.00			0.00		oos	0.00		oos	0.00		oos	0.00		oos	0.00		oos
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						0.00		21.33	7.90		23.02	8.46		22.84	8.47		22.80	8.24	

Note 1 - Basis of Calculations -

CEM Continuous Emission Monitor
PEM Parametric Emission Monitor
Stk Test Periodic or Annual Stack Test

MB Mass Balance
Engr Est Engineering Estimate
EF Emission Factor Estimate

OOS Out of Service

со	Emissions							IRST REV	ISED CONSE	NT DECRE	E								247000000
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				-	10.01	5.40	CEM	25.58	9.52	CEM	20.90		CEM	17.81			lbs/hr	tons/month	
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- Rac	is of Calculations							-			20.00	1.52		17.81	6.63		23.79	8.57	

CEM Continuous Emission Monitor
PEM Parametric Emission Monitor
Stk Test Periodic or Annual Stack Test

MB Mass Balance
Engr Est Engineering Estimate
EF Emission Factor Estimate

PMI	Emissions						F	IRST REVI	SED CONSE APPENDIX F	NT DECRE	E							1st Ha	If 2012
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Unit ID	Emission Unit		January 2012			February 201:			March 2012			April 2012	A		May 2012			June 2012	-
		lbs/hr	tons/month	basis1	lbs/hr	tons/month	basis1	lbs/hr	tons/month	basis	lbs/hr	tons/month	basis	lbs/hr	tons/month	basis1	lbs/hr	tons/month	
11	FCCU	2.24	0.83	Stk Test	1.44	0.50	Stk Test	2.27	0.85	Stk Test	1.93	The second second	Stk Test	1.47		Stk Test	2.92		Stk Test
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	TOTAL =	2.24	0.83		1.44	0.50		2.27	0.85		1.93	0.69		1.47	0.55		2.92	1.05	

#### Note 1 - Basis of Calculations -

CEM Continuous Emission Monitor
PEM Parametric Emission Monitor
Stk Test Periodic or Annual Stack Test

MB Mass Balance
Engr Est Engineering Estimate
EF Emission Factor Estimate

#### First Revised Consent Decree

Michigan Refining Division

Attachment 3 - Identification of Emission Limit Exceedances

First Half 2012

Exceedance Exceedance

Date

House

aragraph	Source	Limit	Exceedance Date	Exceedance Hours	0
		NOx at 93 ppm on a 365-day rolling	Dute	Tiours	Comments
12.1	FCCU Crude &	average and 123 ppm on a 7-day rolling average	None	N/A	There were no exceedances during the reporting period.
13.A.iv	Vacuum Heater	NOx below 0.05 lbs/MMBTU on a 12 month rolling average	None	N/A	There were no exceedances during the reporting period.
14.G	FCCU	SO2 at 35 ppm on a 365-day rolling average and 70ppm on a 7-day rolling average	None	N/A	There were no exceedances during the reporting period.
	Heaters	NSPS Subpart J Fuel Gas limit of 162 ppm	1/25/2012	4 hours	An upset occurred in the cooling water system serving the Sulfur Recovery Unit, the Sour Water Strippers, and the Tail Gas Treater Units. As a result of the cooling system upset, the Tail Gas Treater Unit #1, Tail Gas Treater Unit #2, Sulfur Recovery Unit B Train, and Sulfur Recovery Unit Train shut down and were restarted several times. Due to all of these issues, the Sulfur Dioxide limit was exceeded at the Thermal Oxidizer. The Hydrogen Sulfide limit was also exceeded in the Fuel Gas System, resulting in high Sulfur Dioxide emissions from the Refinery's East Plant charge heaters. In addition, the Refinery flared material from the amine system creating additional Sulfur Dioxide.
15.B	and Boilers	on a 3-hour average	3/12/2012	5 hours	While slopping the GOHT stripper overhead, the overhead receiver level went high and overfilled to the recovery suction drum. This resulted in a high level in the suction drum that lead to the GOHT compressors shutting down. The shutdown of the compressors triggered a chain reaction that caused the GOHT unit to shut down. Because the GOHT was at max rate, with acid gas production rate being high which is directed to the SRUs, the SRUs were surged which caused them to trip offline. The loss of the SRUs and the TGTUs limited the amount of acid gas that coul be treated so the acid gas streams had to be routed for safety and process unit health to the SRU incinerator. This resulted in a spike of H2S throughout the system with the SO2 going above the 250 ppm 12 average and H2S in the fuel gas going high as well.
			3/21/2012	1 hour	It is suspected that the reduction in FCCU charge rate coupled with the ammonia injection rate remaining the same resulted in an excess of NH3 in the sample system causing a chemical reaction in the chiller.
16.A	FCCU	NSPS Subpart J CO limit of 500 ppm on a 1-hour average	4/12/2012	4 hours	The Fluidized Catalytic Cracking (FCC) Unit experienced an unplanned shutdown. The FCC had feed deviation due to loss of reactor level indication and also loss of spent slide valve differential pressure.
			6/30/2012	5 hours	The Crude Unit had problems with incoming feed causing the debutanizer to fill up and send liquid to the Fluidized Catalytic Cracking (FCC) Unit. This resulted in an unplanned shutdown.
			1/22/2012	7.2 hours opacity; 0.25 hours PM (event continued into next day)	A power failure caused many units in the refinery to be shutdown and additionally a rate reduction at the FCCU. During this period the ESPs were non-operational, exceeding the 20% opacity limit and probably exceeding the 0.8 lbs PM/1,000 lb of coke burned.
			1/23/2012	10.5 hours PM	
16.B	FCCU	Particulate Matter at 1 pound per 1,000 pounds of coke burned on a 3-hr average and/or 21% Opacity standard.	1/25/2012	0.1 hours opacity; 0.25 hours PM	An upset occurred in the cooling water system serving the Sulfur Recovery Unit, the Sour Water Strippers, and the Tail Gas Treater Units. As a result of the cooling system upset, the Tail Gas Treater Unit #1, Tail Gas Treater Unit #2, Sulfur Recovery Unit 8 Train, and Sulfur Recovery Unit 0 Train shut down and were restarted several times. Due to all of these issues, the Sulfur Dioxide limit was exceeded at the Thermal Oxidizer. The Hydrogen Sulfide limit was also exceeded in the Fuel Gas System, resulting in high Sulfur Dioxide emissions from the Refinery's East Plant charge heaters. In addition, the Refinery flared material from the amine system creating additional Sulfur Dioxide.
1			3/16/2012	1 hour opacity; 1 hour PM	During the upset events that happened, the FCCU ESP tripped off. This resulted in increased PM and Opacity and the stack.
			4/12/2012	10 E house DA	The Fluidized Catalytic Cracking (FCC) Unit experienced an unplanned shutdown. The FCC had a feed deviation due to loss of reactor level indication and also loss of spent slide valve differential pressure.
	- 1	1	5/4/2012	0.5 hours opacity	The facility experienced process problems resulting in a temporary spike in opacity from the FCCU
			6/30/2012	4.4 hours	The Crude Unit had problems with incoming feed causing the debutanizer to fill up and send liquid to the Fluidized Catalytic Cracking (FCC) Unit This resulted in an unplanned shutdown.
			1/25/2012	continued into	An upset occurred in the cooling water system serving the Sulfur Recovery Unit, the Sour Water Strippers, and the Tail Gas Treater Units. As a result of the cooling system upset, the Tail Gas Treater Unit #1, Tail Gas Treater Unit #2, Sulfur Recovery Unit B Train, and Sulfur Recovery Unit C Train shut down and were restarted several times. Due to all of these issues, the Sulfur Dioxide
			1/26/2012	9 hours	limit was exceeded at the Thermal Oxidizer. The Hydrogen Sulfide limit was also exceeded in the Fuel Gas System, resulting in high Sulfur Dioxide emissions from the Refinery's East Plant charge heaters. In addition, the Refinery flared material from the amine system creating additional Sulfur Dioxide.
21	SRU	SO2 at 250 ppm on a 12-hour average	3/12/2012	continued into next day)	While slopping the GOHT stripper overhead, the overhead receiver level went high and overfilled to the recovery suction drum. This resulted in a high level in the suction drum that lead to the GOHT compressors shutting down. The shutdown of the compressors triggered a chain reaction that caused the GOHT unit to shut down. Because the GOHT was at max rate, with acid gas
500000	**************************************		3/13/2012	8 hours	production rate being high which is directed to the SRUs, the SRUs were surged which caused them to trip offline. The loss of the SRUs and the TGTUs limited the amount of acid gas that could be treated so the acid gas streams had to be routed for safety and process unit health to the SRU incinerator. This resulted in a spike of H2S throughout the system with the SO2 going above the 250 ppm 12 average and H2S in the fuel gas going high as well.
- F			3/14/2012	4 hours	On March 12th, the TGTU 2 temperature dropped causing an excess of acid gas in C Train. The
	- 1	L	3/15/2012	3 nours	acid gas loading was attempted to be shifted to the other trains and away from C. Train, which was
	- 1	<u> </u>	3/16/2012	9 hours	taken off line. The balancing of the acid gas loading caused SO2 to go high at the incinerator. This event continued until 3/17/2012
- 1		F	3/17/2012	24 Hours	On March 16th, 2012 the acid gas balancing in the Sulfur Recovery Unit caused the Tail Gas
1	- 1	F	3/18/2012	21110010	rreater to trip. The amine which scrubs hydrogen sulfide from the units was contaminated which
1			3/19/2012 3/20/2012	Z Hours	reduced the efficiency of scrubbing resulting in high Sulfur Dioxide at the incinerator. This event continued until 3/20/2012
					AND DESCRIPTION OF THE PROPERTY OF THE PROPERT

## Description of Any Problems Meeting Consent Decree Requirements

The refinery's end of line plan for compliance with BWON requirements under paragraph 18K was approved in March 2010. Since the approval, the Detroit refinery has been concerned with and evaluating methods for taking the monthly Spent Caustic sample as required by the plan. The refinery's spent caustic vessels do not have piping to allow for the collection of a safe sample. The refinery currently has an engineering project to install a sampling station. In addition, the refinery submitted an update to the end of line plan to reflect our current abilities on March 11, 2011.

## Implementation of Environmental Beneficial Projects (SEPs)

The Detroit Refinery has finished the process of renovating Fordson Island. Tanks, piping, and structures have been removed from the island. A Phase I environmental assessment of the property was completed in July 2001. A Phase II environmental assessment of the property was completed and the report was submitted to the Wayne County Department of Environment on June 12, 2003. A pipeline to an alternate terminal has been constructed and has been commissioned. Additional site investigation was performed and a site-specific analysis report was submitted to the Wayne County Department of Environment and the Michigan Department of Environmental Quality (MDEQ) in June 2004.

MPC has been unable to transfer ownership to a governmental or non-profit organization; therefore MPC is maintaining this site as green-space. A letter was submitted to EPA on January 12, 2007 providing notification of this development. Since this date MPC has taken efforts to maintain the site as an undeveloped property for use by local wildlife including migratory birds. The site has restricted access to humans. At this time, MPC has met the requirements and intent of the Consent Decree. MPC has documented evidence of wildlife such as fox and coyote frequenting the island.

## **Additional Matters of Concern**

None

## Hydrocarbon and Acid Gas Incident Status Report

The attached spreadsheet has the on-going corrective actions from Hydrocarbon and Tail Gas Incidents.

Attachment 7 - Detroit Refinery Hydrocarbon and Acid Gas Status Report

	Incident	Incident			Corrective Action				
No.	No. or ID	Description	Corrective Action Becommendation	Incident	Actual	Target	Actual	SO2 Emissions	
	THE OF ID	Description	Corrective Action Recommendations	Date	Start Date	Completion Date	Completion Date		Status / Comments
		Hydrocarbon	Flaring: Crude unit shut down due to			AND HIGH MICH	AT LEAST PROCESSION		CAMPAGE AND SERVICE OF THE PARTY OF THE PART
1	35142	4C4a/b issues	s	01/12/11		02/24/11	01/17/11		
5	44. 安徽 李龙							SO2=1692 lbs	
		1	Review DHOUP equipment with strainers to ensure that the strainer specification?s requirements are being met.		1/17/2011	extended until 8/20/2011	8/14/2011		All DHOUP equipment strainers have been reviewed. Based on findin strainers were removed on 22P191 pumps and 76C102 liquid ring compressors. Strainer perforations were increased on the 22P193A pump. A procedure for DHOUP to install only one strainer for spare pi services was issued with a list of all pumps requiring startup strainers.
		2	Update SP-50-29 with ROTAG. Add guidelines for removal of startup/temporary strainers		1/17/2011	8/17/2011	8/2/2011		The following bullets were added to Rev 3 of the SP-50-29 Strainers f mechanical equipment. Each refinery is responsible for a temporary strainer tracking system to ensure temporary strainers are not left in the equipment long term. Typically temporary start-up strainers shall be in service a maximum of two weeks with a preferred operating time of 72 hours or when unit operations has stabilized after start-up. If abnormal sounds or vibration are present, or pump performance diminishnems will running, the pump should be shutdown and the strainer removed. Can should be taken to prevent any debris from falling in the equipment suction while the strainer is removed. Storage (tie wire to suction flang warehouse, etc.) of temporary suction strainers is a decision that is to made by the individual sites. Pipeline to pump nozzle alignment shall to checked during flange bolt-up following removal of the strainer.
		3	Create a procedure/plan for MRD which addresses temporary/startup strainer use, monitoring, and removal.		1/17/2011	extended until 8/20/2011	8/26/2011		MRD startup strainer procedure was issued to Mike Henschen, Maintenance Manager. The procedure is attached to the MOC.
			Remove any Complex 1 startup strainers from pump and compressor services throughout the plant. Startup strainer is defined as being witch hat style. This does not include basket type, T type or Y strainers.		1/17/2011	9/22/2011	9/7/2011		The start up strainers in complex 1 that can be removed have been completed. I worked with reliability to asses and install the proper strainers.
			Remove any Complex 2 startup strainers from pump and compressor services throughout the plant. Startup strainer is defined as being witch hat style. This does not include basket type, T type or Y strainers.		1/17/2011	9/13/2011	9/12/2011		Review of P&ID's as well as field walkdowns identified start up strainers which were then removed.
			Remove any Complex 3 startup strainers from pump and compressor services throughout the plant. Startup strainer is defined as being witch hat style. This does not include basket type, T type or Y strainers.		1/17/2011	9/21/2011	3/30/2011		All screens were pulled by 2/5/11.
		S	Remove any Complex 4 startup strainers from pump and compressor services throughout the plant. Startup strainer is defined as being witch hat style. This does not include basket type, T type or Y strainers.		1/17/2011	9/14/2011	8/16/2011		Start up strainers were identified and removed
		s	Remove any Complex 5 startup strainers from pump and compressor services throughout the plant. Startup strainer is defined as being witch hat style. This does not include basket type, T type or Y strainers.		1/17/2011	Extended until 9/28/11	9/28/2011		At the moment we don't have any pumps or compressors with start up strainers.
		9 0	The DP orifice flow meter installed is not providing the correct value. Fix the flowmeter, so the unit balance is correct.		1/17/2011	Extended until 8/27/2013	To be completed		Open. 6/27/2012 - 04FT0935 vortex flow meter was replaced with a DP office flow meter, but the value is still not correct. The DP orifice flow meter installed is not providing the correct value. Fix the flowmeter, so that balance is correct.
		10 2	Consider replacing all DHOUP vortex flowmeters due to the ineffectiveness of the meters installed during the 1010 scope.		1/17/2011	6/7/2011	6/7/2011		OHOUP is replacing the vortex meters that were inproperly sized or in the vortex meters that were inproperly sized or in the vortex meters that were inproperly sized or in the vortex meters that were inproperly sized or in the vortex meters that were inproperly sized or in the vortex meters that were inproperly sized or in the vortex meters that were inproperly sized or in the vortex meters that were inproperly sized or in the vortex meters that were inproperly sized or in the vortex meters that were inproperly sized or in the vortex meters that were inproperly sized or in the vortex meters that were inproperly sized or in the vortex meters that were inproperly sized or in the vortex meters that were inproperly sized or in the vortex meters that were inproperly sized or in the vortex meters that were inproperly sized or in the vortex meters that were inproperly sized or in the vortex meters that were inproperly sized or in the vortex meters that were inproperly sized or in the vortex meters and the vortex meters are th
		11 in	respect the 76C102A compressor when it is removed from service to check the cleanliness of the compressor internals.		1/17/2011	Extended until 10/7/2011	10/4/2011		The compressor was taken apart and inspected. There are no concerns
		(c	buildup of residue is found inside the compressor check with Chris Rinne after the 4C4A machine is amoved from service), create a wash procedure to clean them until the polymer can be eliminated.		1/17/2011	11/10/2011	10/14/2011	N	lo buildup or residue was found upon inspection, no cleaning procedur eeds to be generated.

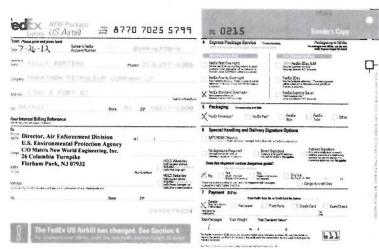
Attachment 7 - Detroit Refinery Hydrocarbon and Acid Gas Status Report

- 100	Incident	Incident		Incident	Corrective Action			+	
No.	No. or ID	Description	Corrective Action Recommendations	Incident	Actual	Target	Actual	SO2 Emissions	
2	40597		ss of Boiler Feedwater to the Sulfur Plant	Date 11/15/11	Start Date	Completion Date			Status / Comments
		Tun ous. 200	To increase reliability and performance of TGTU #2,	11/13/11		12/30/11	12/22/11	SO2=1144 lbs	
		1	TGTU #1 and TGTU #2 flame scanners will be aligned to prevent spurious flame scanner trips.		12/22/2011	12/1/2012	To be completed		Open
		2	To increase reliability and performance of TGTU #2, Sulfur Unit Engineer will add TGTU #2 Burner Inspection and Cleaning to the 2012 TAR Worklist		12/22/2011	1/15/2012	01/16/12		The worklist was checked and The burners are planned to be replace during the 2012 TAR outage.
		3	Instruments in the SRU and TGTU will be reviewed for reliability and all concerns addressed with high priority. Items requiring a shutdown will be repaired at the next available shutdown period.		12/22/2011	2/1/2012	02/01/12		Instrument list was converted to work requests, and progressed through the work order system.
		4	The MPC policy of utilizing and initialing steps in a non- Standard Operating Procedure was not being utilized in a timely manner. Refinery Shift Supervisors will require the use of printed procedures for all non-Standard Operating Procedures per Marathon Corporate Policy immediately upon upset conditions. Initialed procedures will be collected and retained.		12/22/2011	1/7/2012	12/27/11		Developed an email to All of Operations Supervison outlining the Ro and Responsibilities of the Refinery Shift Supervisor during non-stan operating conditions, The role of the Refinery Shift Foreman, comple shift foreman and Day Foreman to insure that Procedures are used gathered back up after use. The email was sent to all of Operations 12/23/2011.
		5	To increase reliability and performance of TGTU #2, Sulfur Unit PCG Representative to test and implement a slowed response to diverter valve 499 to reduce pressure surges when switching SRU B from TGTU #2 to TGTU #1		12/22/2011	3/1/2012	06/30/12		To increase reliability and performance of TGTU #2, Sulfur Unit PCG Representative to test and implement a slowed response to diverter-499 to reduce pressure surges when switching SRU B from TGTU #1. The Diverter valves are not control valves and as such, the responses cannot be slowed down directly. Significant configuration efforts will have to be made to slow the response of 499 while ascertaining there are no adverse effects. A more globally optimal so should be conceived after DHOUP and T/A.
		6	Ensure a procedure for circulation of the GOHT to minimize acid gas production is posted to the information center.		12/22/2011	3/1/2012	03/01/12		acid gas shedding procedure already exists for SRU upset conditions
3	40450	Live and a second	The second second second	AL PLANTER HO	生 的 一种 的 计 。	SESSION FOR THE	District Control	STATE OF THE PERSON	
3	40456		Flaring: FCC Unit Trip	11/6/2011		12/21/2011	12/21/11	SO2 = 4857 lbs	
-			Install the proper draining seal-off per specification	OF STREET	12/20/2011	12/31/2012	To be completed	MACHY SHOULD	Open
		2	Pour the seal-off and add plug to prevent moisture from entering the electrical conduit.		12/20/2011	12/30/2011	12/20/11		
			Update the Field Check Out (FCO) procedure for conduit			1200/2011	12/20/11		Seal-off and plug were installed.
			constructability		12/20/2011	12/30/2011	12/22/2011		FCO has been updated and is being used by construction managem
			Conduct an inspection of the conduit associated with the FCCU. Maintenance has completed the FCCU structure.		12/20/2011	12/29/2011	12/29/2011		The conduit seal work associated with the regen, slide valve actuator complete.
4	41581	Hydrocarbon F	Flaring: Power Dip	A SOLOTER TO	and the second	A SUSPENSION		<b>共三十八十八</b>	SELECTION SHOW COMES OF THE TOTAL SHOWS
	41301		A reliability project has been initiated to install 120V	1/23/2012		3/8/2012	03/07/12	SO2 = 4,020 lbs	
			A reliability project has been initiated to install 120V uninterruptible power supply (UPS) circuits to the NVS Substation process control networking equipment. (23NWK0049)			5/1/2012	3/26/2012	240000 minute	A reliability project has been initiated to install 120V uninterruptible por supply (UPS) circuits to the NVS Substation process control networki equipment. (23NWK0049) This item was completed on 3/26/12.
		2	Initiate an engineering study that identifies the optimal power supply for process control networking switches.			8/1/2012	To be completed		Open
		ľ	nitiate engineering study to modify the 4C4A & 4C4B motor control loop failure methodology in the event of a communication interruption between the motor starter relay and the DCS controller.			7/1/2012	6/29/2012		Engineering study completed. See uploaded file. Addition of a Numeri Array block between the Altivar input and the bit conversion in the Honeywell logic is suggested to strip the status out of the input values communciation is lost in the future, this will prevent the Honeywell logifrom interpreting a "Bad PV" input as a compressor shutdown. MOC entered for logic modification, M20123809-001.
		Įi.	Supply power for 11XV1000, 11UV0781, and 12XV1001 instrument air solenoids from the 11C19 and 12C8 local control panels to be installed in the 2012 Turnaround.			12/1/2012	To be completed		Open
		c	nitiate engineering study to review the reliability of control power auto-transfer operation for the 2005 model square D switchgear.			7/1/2012	6/22/2012		Square D Application Engineers determined the control power Auto- Transfer circuits operated as designed. It was determined that the timi of the loss of power and restoration of power created a scenario in wh poth control power circuits attempted to supply control power. This even n effect created a "race" between the (2) control circuits.

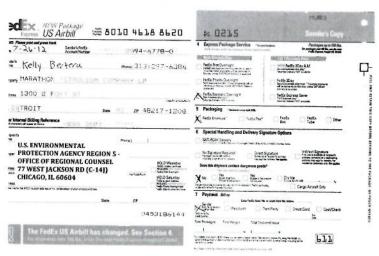
Attachment 7 - Detroit Refinery Hydrocarbon and Acid Gas Status Report

					Corrective Action				
	Incident	Incident		Incident	Actual	Target	Actual	SO2 Emissions	
lo.	No. or ID	Description	Corrective Action Recommendations	Date	Start Date	Completion Date	Completion Date		Status / Comments
		6	Review and attach (to KMS Incident #41581) International Transmission Company (ITC) incident report regarding the findings contributing to the power interuption on January 22, 2012.			4/30/2012	5/5/2012		Review and attach (to KMS Incident #41581) International Transmissic Company (ITC) incident report regarding the findings contributing to the power interruption on January 22, 2012. ITC / DTE / Marathon Power Quality Meeting. Meeting held on May 5th, 2012. Meeting minutes attached.
5	41632	Tail and Acid	Gas: Sulfur Plant Upset	1/26/2012		3/11/2012	03/07/12	SO2 = 14,254 lbs	
			Implement alarm shelving for Complex 2 and eliminate	TIZOTZO TZ				302 - 14,254 IDS	Alarm shelving capability has been implemented in CX2. The PCOs ar
-		1	the continuous use of the alarm filtering  Replace Cooling Tower (7F2) Fan Vibration Switch and		DA ALVIEN	7/1/2012	6/30/2012		now able to implement High priority alarms.
			associated conduit.			3/30/2012	2/27/2012		Vibration repairs have been completed as of 2/27/2012.
			Develop a checklist template for taking cooling tower cell out of service for planned maintenance; to be used by all complexes.			7/1/2012	To be completed		Open
		4	Improve accuracy of level indication on DHT Product Separator.	2012		4/1/2012	5/1/2012		Improve accuracy of level indication on DHT Product Separator. Per email from Operations 07LT0715 was calibrated in the field.
	Call Addition	Tail Cast COL	AND	THE STREET	CARDON SE	Mark Electrical	TOTAL MARKETINE	STEEN ALLEY	ACCESSES OF THE REAL PROPERTY.
6	42330	Intake	T Overhead Stripper Slop to Compressor	3/12/2012		4/26/2012	4/25/2012	SO2 = 885 lbs	
		1	Investigate amine monitoring frequency and testing based on changing plant conditions.			5/31/2012	To be completed		Open
					Marie San	SRU A - 4/30/12		THE RESERVE	
			Investigate and correct the issues with the SRU A Acide Gas Flow Meter and SRU A Tailgas Analyzer.			SRU B - 11/15/12	To be completed		NOTE: SRU A work is scheduled for the April 2012 Outage. These solutions should also be applied to SRU B.
			Investigate the proper exchanger monitoring frequency based on changing plant conditions.			5/31/2012	To be completed		Open
			Investigate Preventive Maintenance or replacement of Sult Traps in the short term.			5/31/2012	5/31/2012		One work order for each sulfur train was written and activated for the operator to remove and inspect the basket and float for all three Sultra per train. twice per year. The Sultrap internals will be replaced if necessary. Inspection to look at Sultrap piping once the internals are removed. Sulfur Train A - WO 4204969, Sulfur Train B - WO 4204970, Sulfur Train C - WO 4204971
			Investigate routing Sulfur Pit Vapors from the Incinerator to the front of the SRUs.			12/31/2015	To be completed		Open
		6	Consider installing a vortex breaker on Tk 51 an TK 52.			Tk 51 - 7/1/12 Tk 52 - Next out of service date	7/1/2012		Vortex breaker was installed on suction nozzle.
			investigate providing a curve for vent valve position versus air flow to provide guidance for filter change-out.			5/15/2012	To be completed		Open
			Consider investigation of the BFW control valve on the Steam Generator			12/28/2012	To be completed		Open
			Evaluate the HAZOP Scenario and Alarm rationalization pasis for the GOHT Stripper Seam Generator high level alarm.			6/30/2012	To be completed		Open
			nvestigate the issues with the Triconics and Honeywell ogic and graphics start-up interface			12/28/2012	To be completed		Open
	HAND TO B	<b>企业工程</b> 上发	htt Natherbardt viele in 1996 och	015-25-73-16C		THE STREET LINE	SERVICE AND THE	SEEM LANCE	
7	42756	Hydrocarbon F	laring: FCC Shutdown	4/12/2012		5/27/2012	6/5/2012	SO2 = 595 lbs	
		1 1	Evaluate the relocation of the normally closed circulation ine chech valve from the vertical to the horizontal position (Line 11-6"-360, P&ID D11-651-01) and installation of an LCO flush on the same line. P&ID's are included in the attachment section of this incident.			12/31/2013	To be completed		Open
		Į.	Establish procedure to direct hot feed to the reactor if leater circulation cannot be established through the lormally closed line.			1/31/2013	To be completed		Open
8	43974	Hydrocarbon E	laring: Flooding of Debutanizer Tower Cau	6/30/2012	STARTED BY	0// //02/2	NUMBER OF STREET		<b>"你是这种的人,我们就是这种的人,我们就是这种的人,我们就是这种的人,我们就是这种的人,我们就是这种的人,我们就是这种的人,我们就是这种人,我们就是这种人,我们</b>
•		Incident 43871	naming, riboding of Deputanizer Tower Caus	6/30/2012		8/14/2012			incident still under investigation; will be included in Secon Half Report









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